REMARKS

This responds to the Office Action dated on April 28, 2006.

No claims are amended, no claims are canceled, and claims 73-98 are added; as a result, claims 1-15, 69-72, and 73-98 are now pending in this application. The amendments to the claims are fully supported by the specification as originally filed. No new matter is introduced. Applicant respectfully requests reconsideration of the above-identified application in view of the amendments above and the remarks that follow.

New Claims

New claims 73-98 recite the features of the previously amended withdrawn claims 16-41 that were canceled by the Examiner in the Notice of Allowance mailed 1 December 2005. In the current Office Action, it is stated that, with respect to the amendment under 37 CFR 1.312, the "Examiner has considered the amendment filed 2/7/06 and would have entered such an amendment but for the claim numbering issues." The new claims correct the claim numbering issues. Applicant submits that claims 1-15 and 69-72 are patentable for at least the reasons stated below. Therefore, with the allowance of claims 1-15 and 69-72, Applicant respectfully requests consideration and allowance of claims 73-98.

Double Patenting Rejection

Claims 1-15 and 69-72 were provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-9, 11-16, 17, 21, 29 and 37 of co-pending Application No. 10/602,315 in view of Song (U.S. Publication No. 2002/0177282). Applicant traverses these grounds of rejection of these claims.

Applicant notes that co-pending Application No. 10/602,315 has issued as U.S. Patent 7,049,192.

In the Office Action, it is stated "the manner of generation of the layers by ALD and CVD is seen as equivalent." Applicant disagrees. Applicant submits that a generic claim does not per se make obvious a claim that is a species of the generic claim. Similarly, though one may argue that CVD is a board generic method of which ALD is species, use of CVD in a given method does not imply or make obvious the use of ALD as a substitute for CVD in the given

method. As noted in the specification, ALD has a number of process characteristics that are distinctly different from a CVD process. In the Office Action, it is stated that "Song teaches that a hafnium oxide layer can be generated by either ALD or CVD." However, Applicant submits that forming a material by two different processes does not teach or suggest that the two processes are equivalent for all fabrication methods. Further, Applicant cannot find in Song or in the Office Action a teaching or a suggestion that CVD and ALD are equivalent for all fabrication methods.

M.P.E.P. § 804 II.B(1), in part, states:

> A double patenting rejection of the obviousness-type is "analogous to [a failure to meet] the nonobviousness requirement of 35 U.S.C. 103" except that the patent principally underlying the double patenting rejection is not considered prior art. *In re Braithwaite*, 379 F.2d 594, 154 USPQ 29 (CCPA 1967). Therefore, any analysis employed in an obviousness-type double patenting rejection parallels the guidelines for analysis of a 35 U.S.C. 103 obviousness determination. *In re Braat*, 937 F.2d 589, 19 USPQ2d 1289 (Fed. Cir. 1991); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985).
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> Since the analysis employed in an obviousness-type double patenting determination parallels the guidelines for a 35 U.S.C. 103(a) rejection, the factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103 are employed when making an obvious-type double patenting analysis.

Applicant submits that in an analysis under 35 U.S.C. 103, According to *M.P.E.P.* § 2141, which cites *Hodosh v. Block Drug Co., Inc.*, 786 F.2d 1136, 1143 n.5, 229 USPQ 182, 187 n.5 (Fed. Cir. 1986), the claimed invention must be considered as a whole. Applicant submits that substituting an ALD process for forming a dielectric layer for a CVD process for forming a dielectric layer does not consider the claims of the instant application as a whole. For example, claim 1 relates to forming a dielectric layer that has a hafnium layer and a lanthanide oxide layer, not by a single process, but by "forming a layer of hafnium oxide by atomic layer deposition and forming the layer of a lanthanide oxide by electron beam evaporation." It is noted that "[a]ny judgement on obviousness is in a sense necessarily a reconstruction based on hindsight reasoning, but so long as it takes into account only knowledge which was within the level of ordinary skill in the art at the time the claimed invention was made and does not include

knowledge gleaned only from applicant's disclosure, such a reconstruction is proper." *In re McLaughlin* 443 F.2d 1392, 1395, 170 USPQ 209, 212 (CCPA 1971).

In the Office Action, reference is made to paragraph [0023] of Song with respect to forming a hafnium oxide by ALD. However, there is no basis, reference, or objective evidence provided in the Office Action or in Song to substitute ALD process for a CVD process in co-pending Application No. 10/602,315 (now U.S. Patent 7,049,19), as proffered in the Office Action. Since an ALD process is distinctly different form a CVD process, using a CVD process in a method that has multiple processes does not teach or suggest that an ALD process would be appropriate for the overall method. Citing Song with respect to forming hafnium oxide by ALD only considers the differences between the co-pending Application No. 10/602,315 (now U.S. Patent 7,049,19) in view of Song and claim 1, but does not consider whether the claims of the instant application as a whole would have been obvious. In determining the differences between the prior art and the claims, the question under 35 U.S.C. 103 is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious. *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 218 USPQ 871 (Fed. Cir. 1983); *Schenck v. Nortron Corp.*, 713 F.2d 782, 218 USPQ 698 (Fed. Cir. 1983); *Interconnect Planning Corp. v. Feil*, 774 F.2d 1132, 1143, 227 USPQ 543, 551 (Fed. Cir. 1985); MPEP § 2141.02.

For at least the reasons stated herein, Applicant submits that the nonstatutory double patenting rejection is not proper and that claims 1-15 and 69-72 are patentable.

Applicant respectfully requests withdrawal of these rejections of claims 1-15 and 69-72, and reconsideration and allowance of these claims.

CONCLUSION

Applicant respectfully submits that the claims are in condition for allowance, and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney at (612) 371-2157 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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By their Representatives,

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Date 27 July 2006 By _____
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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Mail Stop Amendment, Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 27 day of July, 2006.

Name _____ Signature _____